

MASSACHUSETTS BAYS PROGRAM FY10 Annual Work Plan



July 1, 2009 to June 30, 2010

Commonly Used Acronyms

8T&B Eight Towns & the Bay Committee APCC Association to Preserve Cape Cod

CCMP Comprehensive Conservation and Management Plan CRC Coastal Resources Committee (Barnstable County)

CRE Climate Ready Estuaries

CZM Office of Coastal Zone Management

DCR Department of Conservation and Recreation
DEP Department of Environmental Protection

DMF Division of Marine Fisheries
DNR Department of Natural Resource

EEA Executive Office of Energy & Environmental Affairs

EPA Environmental Protection Agency

GOM Gulf of Maine

GOMC Gulf of Maine Council LID Low Impact Development

MAS Massachusetts Audubon Society

MBEA Massachusetts Bays Estuary Association

MBP Massachusetts Bays Program

MET Massachusetts Environmental Trust
MIT Massachusetts Institute of Technology
MVPC Merrimack Valley Planning Commission
MAPC Metropolitan Area Planning Commission
MWRA Massachusetts Water Resources Agency

NDA No Discharge Area

NEANS Northeast Aquatic Nuisance Species

NEP National Estuary Program

NOAA National Oceanic and Atmospheric Administration NPDES National Pollutant Discharge Elimination System

NPS Non-point source pollution

NSRWA North and South Rivers Watershed Association

QAPP Quality Assurance Project Plan
RPA Regional Planning Agency
RSP Regional Service Provider
SSCW Salem Sound Coastwatch
TNC The Nature Conservancy

UNH University of New Hampshire

USFWS United States Fish & Wildlife Service

WQ Water quality

WRP Wetlands Restoration Program

MBP Annual Work Plan, FY10 Page 2

Table of Contents

TOPIC	PAGE
Commonly Used Acronyms	2
A. General Information	
1. Foreword	4
2. Objectives for the coming year	5
3. Highlights of successes from the past year	5
4. Budget	7
5. Staff and key partner responsibilities	11
6. Subawards	11
B. Proposed new and ongoing projects	
Objective A1: Protect and enhance coastal habitat	12
Objective A2: Reduce and prevent stormwater pollution	14
Objective A3: Protect and enhance shellfish resources	16
Objective A4: Manage local land use and growth	17
Objective A5: Manage municipal wastewater	18
Objective A6: Manage marine invasive species	19
Objective A7: Monitor marine waters	20
Objective A8: Adapt for projected impacts of climate change	22
Objective B1: Strengthen the identity and influence of the MBP	23
Objective B2: Identify and pursue alternative funding	24
Objective B3: Ensure effectiveness of MBP structure for managing implementation	25
C. Previous year's activities	
1. Goals and accomplishments	26
2. Support of CWA core program	53
3. Impacts of external factors	54
D. CWA funds used for travel and national meeting attendance	55

MBP Annual Work Plan, FY10 Page 3

A. General Information

1. Foreword

The Massachusetts Bays Program (MBP), its Management Committee, and partners have developed the following Work Plan and Grant Application to serve as a comprehensive guide for the program's activities over the next fiscal year (federal FY09; state FY10). The MBP annual Work Plan is based on a recently completed three year Strategic Plan (2009-2012), which, in-turn, is based on the Comprehensive Conservation and Management Plan (CCMP), the overarching guide for the program. The Work Plan outlines planned objectives, tasks, and a budget for the coming year, highlights successes from the previous year's activities, and describes the role of staff and key partners who will serve as leads for many of the actions described in the following pages.

The Work Plan outlines eleven priority objectives for the coming fiscal year (see section 2 below). Eight of these objectives lead to actions that will produce significant environmental results in the region in areas such as stormwater management, habitat protection, and marine invasive species. The remaining three objectives outline the program's approach to strengthening the visibility and effectiveness of MBP, thereby enhancing our capacity to achieve measurable environmental benefits.

Responsibility for implementing the Work Plan will fall to MBP staff, its Management Committee, and Regional Service Providers (RSPs) whose services are secured through a Request for Proposals. The function of the RSPs is to work with local stakeholders and advisory groups representing MBP constituents to prioritize and implement MBP program efforts based on the CCMP. Once the RSPs are selected, MBP staff and Management Committee will work to develop scopes of work, tasks, and outputs that are consistent with the Work Plan. Note that in some cases, outputs described in the Work Plan are to be refined in conjunction with RSPs and their local constituencies once contracts are in place.

MBP looks forward to another successful year of achieving positive and significant environmental results for Massachusetts and Cape Cod Bays. We are indebted to our Management Committee, our primary funder, the Environmental Protection Agency, and other partners for their continued support in this planning process and Work Plan implementation. For more information please contact:

Jay Baker Executive Director Massachusetts Bays Program 251 Causeway St., Suite 800 Boston, MA 02114

Phone: 617-626-1204

Email: jason.baker@state.ma.us

2. Objectives for the coming year

The following objectives are articulated in the MBP Interim Strategic Plan for 2009 - 2012. Note that Objectives A1-A7 are the program's priority action areas identified in the 2003 update of the CCMP. Objective A8 is a new objective of the Strategic Plan.

Goal A: Producing significant environmental results in the MBP region

Objective A1: Protect and enhance coastal habitat

Objective A2: Reduce and prevent stormwater pollution

Objective A3: Protect and enhance shellfish resources

Objective A4: Manage local land use and growth

Objective A5: Manage municipal wastewater

Objective A6: Manage marine invasive species

Objective A7: Monitor marine waters

Objective A8: Adapt for projected impacts of climate change

Goal B: Building organizational effectiveness

Objective B1: Strengthen the identity and influence of the MBP

Objective B2: Identify and pursue alternative funding

Objective B3: Ensure effectiveness of MBP structure for managing implementation

3. Highlights of successes from the past year

Protect and enhance coastal habitat

- A manual for assessing coastal wetland health is being completed in cooperation with the state
 Office of Coastal Zone Management and EPA's Atlantic Ecology Division; in May, training will
 be given to thirty members of the New England Biological Assessment of Wetlands Working
 Group on its use.
- New fish run monitoring began in Sandwich, Wellfleet, Chatham, and Harwich, complementing existing programs in Brewster, Orleans, Pembroke, Marshfield, Norwell, and Hanover.
- A new fish ladder was installed at Upper Shawme Pond in Sandwich.
- Volunteers were involved in water quality monitoring in Manchester.
- Three salt marshes in the Salem Sound area were monitored to assess salinity, vegetation, nektons, and macroinvertebrates.
- Pepperweed was removed from four sites in the Salem Sound region, and an outreach poster was developed and distributed.
- Shellfish monitoring was initiated at Mill Pond in Gloucester to establish pre-restoration data on the health of a tidal wetland.
- Permitting was completed for a 5-acre restoration project at the Thissell Marsh in Beverly. The
 current economic situation has put the project on hold temporarily until Endicott College frees up
 money to relocate the tennis courts that will be removed as part of the restoration effort.
- Removal of *Phragmites* was carried out in the Great Marsh, both my mechanical and chemical means; an assessment of *Phragmites* ecology and its impact on the marsh is ongoing.
- Data are being collected to inform decisions about the status and management of tide gates in Cohasset's Little Inner Harbor and Marshfield's Green Harbor to address problems arising due to tidal restriction.

Reduce and prevent stormwater pollution

- Stormwater financing workshops were held on Cape Cod (January) and the North Shore (April).
- As a result of the workshop on Cape Cod, the Town of Yarmouth has applied for funding to conduct a "Does It Make Sense" feasibility study for setting up a municipal stormwater utility. MBP's Cape Cod coordinator/APCC will provide some in-kind technical assistance

- Eleven rain gardens were completed on the South Shore.
- Several Greenscapes workshops were held for homeowners and landscape professionals.
- Over 100,000 Greenscapes guides were distributed; a calendar for 2009 is being printed.
- Stormdrain marking was carried out in several communities in Salem.
- In the Salem Sound region, water quality (bacteria) was tested at 27 sites; high readings at 5 sites were reported to municipal agents.

Protect and enhance shellfish resources

 Fecal coliform data was collected on the South Shore to inform management decisions about shellfish bed closures.

Manage local land use and growth

- Design and construction of the Peabody Street park on the South River in Salem was initiated.
- Grant received to renovate and improve Furlong Park along the North River in Salem.
- The MBP's Cape Cod coordinator is assisting the Town of Falmouth on pre-disaster mitigation plan development as part of CZM's StormSmart Coasts pilot initiative.

Manage wastewater

- In this reporting period, NDA designations were given to Cape Cod Bay, Salem Sound, the Lower North Shore, and the South Shore.
- Numerous outreach pieces (posters, brochures, presentations) were developed to educate boaters about NDAs and about pumpout options.
- A video on the impact of septic systems on shellfish beds was produced and distributed to local cable TV stations in 2008.

Manage marine invasive species

- A revised version of Marine Invasive Species cards was developed.
- Salem Sound partners participated in the international SETL project, collecting data on fouling organisms in temperate marine waters.
- MBP staff assisted on revision of bylaws and workplan development for the Northeast Aquatic Nuisance Species Panel.

Monitor marine waters

- MBP staff developed a database of toxic contaminants found in Blue Mussels as part of the Gulfwatch program and uploaded it to Gulf of Maine Council server.
- National Coastal Assessment standards for sediments were developed.
- Marine monitoring took place in Little Inner Harbor (Cohasset), Masquashcut Pond (Scituate), Green Harbor (Marshfield), Mill Pond (Gloucester), and Straits Pond (Hull, Hingham, Cohasset).

Adapt for projected impacts of climate change

- MBP is hosting one of the Climate Ready Estuaries pilot projects, this one focusing on an assessment of the salt marsh ecosystem to climate-driven vulnerability.
- A draft scope of work for an MBP climate advisory group was developed.
- In March, MBP co-hosted and presented at a workshop on the North Shore targeting0 municipalities and focusing on sea level rise and adaptation options.
- A new and discrete objective focused on climate change was written into the MBP Strategic Plan and annual work plan.
- A proposal was developed to fund mapping and monitoring of coastal embayments on Cape Cod where salt marsh retreat can occur as sea level rises.

Strengthen the identity and influence of the MBP

- The Stephan Gersh Award was presented to Russ Vickers for his tireless contributions supporting the health of the Salem Sound watershed.
- In February, and on behalf of the MBP, representatives from the program's host (Massachusetts
 Office of Coastal Zone Management) made legislative outreach visits to congressional
 representatives in Washington D.C.
- An assessment of the needs of regional service providers was initiated to inform the development of a new communications strategy and plan.
- MBEA was actively engaged in promoting the Greenscapes program, reaching over 50,000 people at five special events throughout the MBP region and state.

Identify and pursue alternative funding

- As reported in NEPORT, during federal FY08, the MBP leveraged a total of \$3,765,018 in funds. Of these, 70% were cash and 30% were in-kind. Contributing were federal and state agencies (29% each), local sources (24%), and private sources (18%). MPB played a primary role in leveraging 71% of these funds, a significant role in leveraging 18%, and a supporting role in leveraging the remaining 10%. The following is a breakdown of leveraged funding by the MBP priority action categories:

-	\mathcal{C}	
•	Protecting and Enhancing Coastal Habitat	38%
•	Managing Local Land Use and Growth	24%
•	Enhancing Public Education	9%
•	Managing Boat Wastes and Marina Pollution	5%
•	Reducing Beach Debris and Marine Floatables	4%
•	Reducing and Preventing Stormwater	3%
•	Marine Monitoring	2%
•	Preventing Marine Invasives	2%
•	Managing Municipal Wastewater	1%
•	Combination / Other	12%

Ensure effectiveness of MBP structure for managing implementation

- In September, the MBP filled the Outreach and Policy Coordinator position, and in February, the MBP welcomed a new Director.
- MBP successfully prepared for and "passed" the triennial Program Evaluation.
- A small group of staff, Management Committee members, and partners developed a set of draft bylaws to govern the Management Committee.
- An interim three-year Strategic Plan was completed for the period 2009-2012.
- A request for proposals was issued soliciting regional service providers for the next 1-3 years.
- The Cape Cod Coastal Resources Committee was reconvened after several dormant years; regular meetings are now ongoing; a mission statement and workplan were developed.
- The Eight Towns & the Bay Committee continues to meet to discuss issues relating to the MBP's Upper North Shore region.

4. Budget

a) Anticipated Budget for State Fiscal Year FY10

Category	§320 funds
Personnel	
- Director: Annual Salary	70,312
 Outreach and Policy Coordinator: Annual Salary 	55,729
- Fringe @ 26.21	33,035
Total Personnel	159,076
Contractual	
 Marine Scientist 	57,300
 Regional Service Providers 	239,000
Total Contractual	296,300
Other Charges	
- Indirect Charges @ 25.74% (personnel and contractual)	108,711
 Payroll Tax @ 1.38% (personnel and Marine Scientist) 	2,530
Total Other Charges	111,241
Other Expenses	
- Travel	8,000
- Other (printing, IT, supplies, etc.)	25,383
Total Other Expenses	33,383
GRAND TOTAL	\$600,000

b) Anticipated Match

Category	Match funds
Regional Service Providers (cash and in-kind)	\$234,000
Leveraged funds and state grants to Massachusetts Bays communities	
and partners in support of CCMP implementation	\$370,000
GRAND TOTAL	\$604,000

Match will be provided by regional service providers as in-kind services devoted to projects and activities that support the implementation of the CCMP, as well as state grants awarded to MBP municipalities for land acquisition or other efforts related to CCMP implementation.

c) Budget Description

The MBP is uniquely structured in relation to other NEPs in that the vast majority of its budget is allocated for personnel costs. MBP supports three central staff, including a Director, Outreach and Policy Coordinator, and Marine Scientist, as well as up to five Regional Service Providers (RSPs), which are identified through a competitive bidding process.

As outlined in the following section, central staff are responsible for overall program administration, support, and supervision of RSPs, and implementation of technical elements of the FY10 Work Plan (Goals A: Produce Significant Environmental Results in the MBP Region), particularly Objective A7. Monitor Marine Waters. Central staff has primary responsibility for

implementing Goal B of the Work Plan: Building Organizational Effectiveness, as described below.

Regional Service Providers are responsible for managing networks of constituents in each of MBP's five subregions with the goal of implementing the CCMP at the local level. RSPs have primary responsibility for implementing technical elements of Goal A (Objectives A1-A7) of the FY10 Work Plan with the support of Central Staff, the MBP Management Committee, and local partners. RSPs and their host organizations provide substantial matching funds through their own CCMP implementation efforts and by securing grants from state funding sources.

d) Budget Summary by Activity/Objective

Immediately following is a summary of how §320 funds are spent, broken down by activity and/or Work Plan objective.

		ecutive rector	Education and Policy Coordinator		Marine Scientist		Regional Service Providers		Total
i) Program Administration	30%	\$32,343	30%	\$25,635	0%	\$0	0%	\$0	\$57,978
ii) Goal A:	30%	\$32,343	30%	\$23,033	0%	φU	0%	\$0	\$31,910
Objectives A1-									
A6, A8	50%	\$53,905	10%	\$8,545	10%	\$7,284	80%	\$240,415	310,149
iii) Goal A: Objective A7	0%	\$0	0%	\$0	90%	\$65,556	10%	\$30,052	95,608
iv) Goal B: Objectives B1-3	20%	\$21,562	60%	\$51,269	0%	\$0	10%	\$30052	102,883
v) Travel									\$8,000
vi) Other									
Expenses									\$25,383
TOTAL									\$600,000

i) Program Administration

The Executive Director and Outreach and Policy Coordinator will have primary responsibility for program administration, which includes convening and staffing the MBP Management Committee, managing the program budget and contracts, and submitting Work Plans and reports to EPA. An additional focus this year will be placed on revising contracting and invoicing processes, developing by-laws for the program, and other tasks that will result in a significant program administration work load.

		ecutive rector	Education and Policy Coordinator		Marine Scientist		Regional Service Providers		Total
Program	200/	Ф22.242	200/	Φ25. c25	00/	Φ.Ο.	00/	Φ0	Φ57.070
Administration	30%	\$32,343	30%	\$25,635	0%	\$0	0%	\$0	\$57,978

ii) Goal A: Produce Significant Environmental Results in MBP Region: Objectives A1-6, 8 As outlined in section B below, Goal A of the FY10 work plan includes technical elements identified in the CCMP including protecting and enhancing coastal habitat, reducing and preventing stormwater pollution, and managing invasive species. These efforts are led primarily by contracted Regional Service Providers, with support from MBP Central Staff.

		cutive ector	and	ication Policy dinator		arine entist	0	nal Service oviders	Total
Goal A: Objective									
A1-6, 8	50%	\$53,905	10%	\$8,545	10%	\$7,284	80%	\$240,415	310,149

iii) Goal A: Produce Significant Environmental Results in the MBP Region: Objective A7 Goal A, Objective A7 involves monitoring estuarine and marine waters within the MBP region. These tasks are the primary responsibility of the Marine Scientist, with input and support from the Regional Service Providers.

	Executi Direct		Education Poli Coordi	сy		arine entist	0	al Service viders	Total
Goal A: Objective A7	0%	\$0	0%	\$0	90%	\$65,556	10%	\$30,052	95,608

(v) Goal B: Build Organizational Effectiveness for the Massachusetts Bays Program Goal B includes objectives and tasks that will strengthen the overall effectiveness and efficiency of MBP. Tasks include strengthening the Management Committee, developing a financial strategy, developing an outreach plan, etc. Responsibility for implementing these Objectives falls primarily to the Outreach and Policy Coordinator, with substantial assistance from the Executive Director, Regional Service Providers, and the Management Committee.

	Executive Director		Education and Policy Coordinator		Marine Scientist		Regional Service Providers		Total
Goal B:									
Objectives B1-3	20%	\$21,562	60%	\$51,269	0%	\$0	10%	\$30052	102,883

v) Travel Expenses

MBP has set aside \$8,000 for central staff travel to local and national events including two ANEP/NEP meetings in FY10. Additional travel funds will be used for attendance at regional and in-state events and meetings.

vi) Other Expenses

An additional \$25,383.08 has been allocated for printing, workshops, and other incidental expenditures.

5. Staff and key partner responsibilities

- Director The MBP Executive Director (the Director), Jay Baker, is responsible for the overall management of the program, including administration of grants and contracts, staff supervision, and general program operations. The Director works with the MBP Management Committee and program staff to set priorities for the program and facilitates development of the three year Strategic Plan as well as an annual Work Plan and grant application to EPA. The Director coordinates with EPA and the host agency, CZM, on administrative and programmatic issues, and provides oversight to regional service providers. The Director also assists with MBP technical and policy initiatives as needed, and will work with staff, the Management Committee, and partners to seek additional resources for MBP.
- Outreach and Policy Coordinator The primary responsibility of the Outreach and Policy Coordinator (the Coordinator), Carole McCauley, is to communicate the mission, activities, and products of MBP to the communities and constituents served by the program. The Coordinator will develop an annual outreach and communications plan in conjunction with the MBP Management Committee and staff that advances recognition of the program and promotes the attainment of goals outlined in the CCMP and Strategic Plan. The Coordinator will manage the program website, produce a quarterly newsletter, and identify and employ additional mechanisms of outreach. In addition, the Coordinator will lead the implementation of select objectives identified in the Work Plan, such as the MBP Climate Ready Estuaries initiative. The Coordinator also serves in a significant program management role, assisting the Director with the development and submission of annual Work Plans and grant application, coordination of Management Committee meetings, developing and submitting required reports, and general facilitation of MBP operations and initiatives.
- Marine Monitoring Scientist The primary purpose of the Marine Monitoring Scientist (the Scientist), Christian Krahforst, is to identify and fill research and monitoring needs in the MBP planning area that are consistent with the priorities of the CCMP and the annual Work Plan. The Scientist will work with MBP staff and Regional Service Providers to identify local research needs, assist with the development and implementation of monitoring efforts, and guide technical elements of the MBP, all of which will be articulated in an annual Marine Monitoring and Research Plan. The Scientist will serve as the lead on the development of the 2009 State of the Bays Report, the development of Quality Assurance Project Plans for relevant MBP initiatives, and coordinate MBP's involvement in the National Coastal Assessment Program. The Scientist will assist with program management requirements as necessary.
- Regional Service Providers Regional Service Providers (RSPs) serve as MBP's primary means of communication with the communities of the MBP planning area. RSPs are responsible for identifying regional priorities that are consistent with the CCMP and three year Strategic Plan, and for developing and implementing strategies for implementing the annual Work Plan at the local level. RSPs are hosted by regional planning agencies or nonprofit organizations, and are responsible for coordinating the activities of MBP with these organizations. MBP will select up to five RSPs in state FY10 (up to one representative for each of MBP's five sub-regions).

6. Subawards

N/A

B. Proposed New and Ongoing Projects

Goal A: Produce significant environmental results in the MBP region

Objective A1: Protect and enhance coastal habitat

Description: FY10 restoration activities will focus on monitoring, protection, and restoration of three priority habitat types: salt marsh, diadromous fish runs, and eelgrass beds. Tasks will include identification of restoration opportunities in each region.

Outcomes:

- <u>Short-term</u>: Data and information are available to inform and motivate communities to act with regard to coastal habitat policy requirements and best practices
- <u>Intermediate</u>: Habitat quality and extent is known, effort is being made to restore and protect habitat, data are available to determine effectiveness
- Long term: Healthy, diverse, and representative coastal habitats and species exist and are protected

CWA core program(s) supported: Strengthening WQ standards, Controlling NPS pollution on a watershed basis, Strengthening NPDES permits, Improving water quality monitoring, Developing TMDLs

Task		Lead	Partners	Outputs
A1a)	Revise habitat objectives of the Strategic Plan to clearly articulate the role of MBP in prioritizing, protecting, and restoring coastal habitats	MBP staff, RSPs, MBP Management Committee	CZM, WRP, DEP, DFG, EPA, NOAA, others	 Revised Habitat Objective (Objective A1) of the 2009- 2012 Strategic Plan Revisited Habitat Plan
A1b)	Work to identify priority salt marsh restoration opportunities	RSPs, MBP staff	CZM, WRP, NOAA, Massachusetts Habitat Restoration Partnership	 Prioritized list of salt marsh restoration opportunities by region
A1c)	Continue to engage volunteers in the assessment and monitoring of salt marsh habitats to establish pre- and post- restoration conditions	RSPs	CZM, WRP, NOAA, MBP communities	Number of sites to be determined following RSP bidding
A1d)	Utilize DMF diadromous fish run database to identify restoration opportunities	DMF, RSPs, MBP staff	MBP communities	- Priority diadromous fish run projects initiated, number of which to be determined following RSP bidding

MBP Annual Work Plan, FY10 Page 12

Task		Lead	Partners	Outputs
Ale)	Expand and support volunteer diadromous fish monitoring efforts to support restoration activities and raise community awareness	RSPs	DMF, MBP staff, MBP communities	 Number of sites to be determined following RSP bidding Report on assessed populations completed
A1f)	Evaluate the efficacy of new technologies for monitoring diadromous fish populations and assessing restoration efforts	RSPs	DMF, MBP communities	Evaluation report on new monitoring techniques/technologies as they develop
A1g)	Support local efforts to protect eelgrass habitat through wastewater planning and NPS management efforts	RSPs, MBP staff	CZM, WRP, DEP, MBP communities	A minimum of two water quality remediation projects sited in areas of existing eelgrass beds
A1h)	Support research and implementation of eelgrass protection BMPs such as conservation moorings	RSPs, MBP staff	DMF	One demonstration project initiated including monitoring and evaluation of effectiveness
A1i)	Support restoration projects funded through the 2009 economic recovery package	RSPs, MBP staff	CZM, WRP	Contingent on funding approval, a minimum of three habitat restoration projects initiated with MBP support
A1j)	Support regional habitat restoration efforts	MBP staff	GOMC, NOAA, WRP, CZM	-

Objective A2: Reduce and prevent stormwater pollution

Description: The primary focus of this objective in FY10 will be assisting towns to achieve regulatory compliance related to NPDES Phase II as well as effective implementation of Massachusetts stormwater regulations and policies. Additional emphasis will be placed on the prioritization and implementation of stormwater retrofit opportunities, as well as assessment of the effectiveness of stormwater management efforts.

Outcomes:

- Short-term: Data and information are available to inform and motivate communities to act with regard to coastal habitat policy requirements and best practices
- <u>Intermediate</u>: Habitat quality and extent is known, effort is being made to restore and protect habitat, data are available to determine effectiveness
- Long term: Representative diversity of coastal habitats and species exist and are protected

CWA core program(s) supported: Controlling NPS pollution on a watershed basis, Strengthening NPDES permits, Developing TMDLs

Task		Lead	Partners	Outputs
A2a)	Survey communities to determine progress and needs for complying with NPDES Phase II requirements, implementation of Stormwater Management Plans, and implementation of state stormwater standards	RSPs, MBP staff	MBP communities, EPA, DEP, RSPs	Report from each RSP summarizing survey results
A2b)	Develop a Work Plan for addressing technical assistance and resource needs based on the results of Task A2a	RSPs, MBP staff	MBP communities, EPA, DEP	- Work Plan from each RSP
A2c)	Provide technical assistance related to the development of stormwater financing and the implementation of municipal stormwater utilities (MSUs)	RSPs, MBP staff	MBP communities, EPA, MSU experts	 Minimum of two workshops on development of MSUs Technical resources and materials developed
A2d)	Continue to engage local constituents in stormwater management efforts through monitoring at stormwater outfalls and receiving waters	RSPs	MBP communities, EPA, DEP, MBP staff	A minimum of one regional monitoring effort and associated data/report
A2e)	Based on task A2a-A2d, identify, prioritize, and seek resources for the implementation of stormwater retrofit projects	RSPs, MBP staff	MBP communities, EPA, DEP	- A minimum of four priority stormwater retrofit projects initiated or completed
A2f)	Develop an LID implementation strategy for the program	MBP staff,	MBP communities,	MBP LID implementation

		EEA,	EPA, DEP		strategy
		RSPs			
A2g)	Develop microbial source tracking	DEP,	EPA, RSPs	_	A minimum of one
	techniques and assess the	MBP			stormwater retrofit
	effectiveness of stormwater BMPs	staff			site assessed and
					associated report
A2h)	Continue to provide technical	RSPs	MBP	_	Number of projects to
	assistance on stormwater/NPS		communities,		be determined
	outreach related to the actions of		RSPs, MBEA		following RSP
	MBP community members through				bidding
	Greenscapes and other education				
	efforts				
A2i)	Re-engage the Department of	MBP,		_	Participation on
	Transportation and Mass Highways	DOT,			Management
	as MBP partners	MHD			Committee

Objective A3: Protect and enhance shellfish resources

Description: The focus of MBP's work is in supporting local efforts to restore shellfish beds and promote sustainable aquaculture .

Outcomes:

- <u>Short-term</u>: Data and information are available to inform and motivate communities to act with regard to shellfish policy requirements and best practices
- <u>Intermediate</u>: Shellfish habitat quality and extent are known; pollution is mitigated, and monitoring data are available to determine effectiveness
- Long term: Shellfish are safe for human consumption; sustainable aquaculture operations are supported

CWA core program(s) supported:, Controlling NPS pollution on a watershed basis, Improving water quality monitoring, Developing TMDLs

Task		Lead	Partners	Outputs
A3a)	Identify existing shellfish bed priorities and restoration opportunities	RSPs	DMF	 A review of shellfish bed restoration opportunities by region
A3b)	Assist communities in writing grants to support the implementation and management of shellfish bed restoration projects	RSPs	CZM, DEP, DMF	A minimum of two proposals written in support of shellfish bed restoration
A3c)	Evaluate the efficacy of stormwater remediation projects for opening closed or conditionally approved shellfish beds (see task A2f).	DEP	RSPs, MBP staff	Minimum of one stormwater retrofit site assessed and associated report

Objective A4: Manage local land use and growth

Description: The MBP will continue to offer technical support to communities regarding the management of local land use and growth.

Outcomes:

- Short-term: Data, information, and planning tools are available to inform and motivate communities
 to act with regard to land use policy requirements and best practices that protect coastal and water
 resources
- <u>Intermediate</u>: Appropriate local land use policies and plans are in place
- Long term: Land use has little or no adverse impact on water quality and the health of coastal habitats

CWA core program(s) supported: Controlling NPS pollution on a watershed basis

Task		Lead	Partners	Outputs
A4a)	Develop a coastal LID implementation strategy (see also Task A2f)	MBP staff, RSPs	EEA, CZM, RPAs, DEP	A cooperative strategy for LID implementation in the MBP region
A4b)	Lead and support LID demonstration and implementation projects	RSPs	MBP communities	A minimum of two LID implementation projects initiated
A4c)	Provide technical support to town boards regarding smart growth and its relationship to habitat protection	RSPs	MBP communities	 Support provided to Conservation Commissions, Planning Boards, and local growth management entities on an as needed basis Number of projects to be determined following RSP bidding
A4d)	Support development of land protection/conservation efforts that have a direct impact on coastal wetlands or water quality	RSPs	MBP communities	 Conservation efforts initiated/supported in each region Number of projects to be determined following RSP bidding

Objective A5: *Manage wastewater*

Description: The focus of this objective continues to be on the designation and implementation of NDAs and providing technical assistance to communities related to wastewater management.

Outcomes:

- <u>Short-term</u>: Data and information are available to inform and motivate communities to act with regard to wastewater policy requirements and best practices
- <u>Intermediate</u>: Wastewater discharge requirements are met
- <u>Long term</u>: Water bodies support designated human uses and provide suitable habitat for fish, other aquatic life, and wildlife

CWA core program(s) supported: Supporting municipal wastewater infrastructure, Strengthening WQ standards, Developing TMDLs

Task		Lead	Partners	Outputs
A5a)	Continue to assist CZM with local coordination and information gathering related to the development of NDA applications	CZM	RSPs, EPA, MBP communities	Upper North Shore NDA application submitted
A5b)	Provide local technical assistance and outreach related to the implementation of applicable NDA regulations	RSPs	CZM, EPA, MBP communities	 Outreach materials developed in two regions
A5c)	Provide technical support to MBP communities for wastewater planning and the review of Massachusetts Estuaries Project technical reports, associated nutrient thresholds, and alternatives analyses	MBP staff, RSPs	DEP, CZM	 Comments provided on all MEP technical reports developed for the MBP Region Technical support provided for affected communities

Objective A6: *Manage marine invasive species*

Description: The focus of this objective is on continuing to support state and regional efforts to manage invasive species.

Outcomes:

- Short-term: Data and information are available to inform decision-making
- <u>Intermediate</u>: Measures are taken to minimize the introduction and spread of marine invasive species
- Long term: Impacts of marine invasive species are minimized

CWA core program(s) supported: Developing TMDLs

Task		Lead	Partners	Outputs
A6a)	Continue to engage volunteers in monitoring for new marine invasive species introductions and population expansion	RSPs, CZM	MBP communities, MIT Sea Grant, NEANS	 Minimum of ten sites monitored for marine invasive species Monitoring report completed
A6b)	Work with the Massachusetts Aquatic Invasive Species (AIS) Working Group to identify priority transport vectors and outreach opportunities based on results of monitoring efforts	RSPs, MBP staff, CZM	CZM, AIS Working Group	Outreach plan developed in conjunction with CZM
A6c)	Restore salt marsh habitat through the control of nonindigenous species	RSPs	CZM, WRP, MBP communities, landowners	Minimum of one restoration project implemented
A6d)	Work with the NEANS Panel to develop regional monitoring, outreach, and control efforts for marine invasive species	MBP staff	NEANS Panel	NEANS Panel Work Plan produced that clearly identifies MBP's regional role

Objective A7: *Monitor marine waters*

Description: The MBPs primary involvement in marine monitoring is twofold. First, the program offers expertise and assistance to RSPs and local partners in developing sound monitoring programs. Secondly, it plays a vital role in compiling, analyzing, and synthesizing data for local and regional partners ranging from municipalities to the GOMC.

Outcomes:

- Short-term: Data and information are available to inform monitoring and decision-making
- Intermediate: Data are used to inform decision-making
- Long term: Quality of coastal waters improves

CWA core program(s) supported: Strengthening WQ standards, Controlling NPS pollution on a watershed basis, Strengthening NPDES permits, Improving water quality monitoring, Developing TMDLs, Supporting sustainable wastewater infrastructure

Task		Lead	Partners	Outputs
A7a)	Develop annual Marine Monitoring Plan	MBP staff	RSPs	Annual MarineMonitoring Plancompleted
A7b)	Synthesize ongoing monitoring efforts within Mass Bays	MBP staff	RSPs, CZM regional staff, GOMC, NOAA, DEP, MBP communities, students, consultants	 State of the Bays Report completed Summary of MA contaminants monitoring completed for Gulfwatch Minimum of two draft embayment WQ monitoring reports prepared
A7c)	Provide information gathered in monitoring efforts to constituents and the general public	MBP staff	RSPs, UMass, CZM	 Summary of National Coastal Assessment Monitoring 2000- 2005 completed MBP Embayment Atlas initiated
A7d)	Provide targeted technical assistance for monitoring of specific embayments and coastal systems	MBP staff, RSPs, CZM regional coordinators	MBP communities	Monitoring results available
A7e)	Explore linking public health with environmental indicators/quality including emerging toxins, pharmaceuticals, and personal care	MBP staff	CZM, DEP	Minimum of one proposal submitted for funding

MBP Annual Work Plan, FY10 Page 20

	products				
A7f)	Conduct and support Gulfwatch monitoring efforts	MBP staff, DMF, GOMC	RSPs. MBP communities, CZM, DEP	-	Annual Gulfwatch blue mussel survey results available
A7g)	Update MBP Quality Assurance Program Plan for efforts that engage the MBP	MBP staff, RSPs	EPA	_	MBP QAPP updated

Objective A8: Adapt for projected impacts of climate change

Description: This is a new objective in MBP's Strategic Plan for 2009-2012 and Annual Work Plan. In the first year, the focus will be on documenting what is known and what is needed, and in articulating strategies for how the program will proceed in addressing climate change adaptation. As the field of adaptation is still very much emerging, one key element in this will be to network aggressively to keep abreast of what others are doing, both to avoid duplication of effort as well as to learn from the experiences of others.

Outcomes:

- <u>Short-term</u>: Data about impacts and information are available to inform and motivate communities to act with regard to climate change adaptation
- <u>Intermediate</u>: Measures are taken to prepare and protect coastal resources from the impacts of climate change
- Long term: Climate-driven impacts to the coastal environment are minimized

CWA core program(s) supported: Supporting sustainable wastewater infrastructure

Task		Lead	Partners	Outputs
A8a)	Convene a committee to advise on MBP's climate strategy	MBP staff, MBP Management Committee	RSPs, technical experts	 Kick off meeting held Committee Terms of Reference completed
A8b)	Review and provide input on the work of the Climate Ready Estuaries salt marsh vulnerability assessment	MBP staff, MBP climate committee, EPA	ICF, RSPs, technical experts, CZM	CRE salt marsh assessment report completed
A8c)	Assess needs of MBP communities with regard to adaptation planning	MBP staff, RSPs	MBP climate committee	- Results from constituent survey
A8d)	Link in to other climate- related initiatives to ensure that MBP efforts are complementary and not duplicative	MBP staff, RSPs	EEA, CZM, "Massachusetts NGO climate coalition"	- Representation on or with other committees/efforts

MBP Annual Work Plan, FY10 Page 22

Goal B: Build organizational effectiveness for the Massachusetts Bays Program

Objective B1: *Strengthen the identity and influence of the MBP*

Description: In the coming year, the MBP is looking forward to giving a new face to the program in terms of its image and identity. Additionally, the identity and interests of the program's constituent base (stakeholders) will be assessed and described in a formal process. Effort will be made to come up with meaningful indicators to measure and recognize the degree to which constituents feel that the MBP is effective.

Outcomes:

- <u>Short-term</u>: Organizational identity products are shared with constituents
- <u>Intermediate</u>: The Program has a presence in all of the communities of the MBP region
- Long term: MBP is an effective, credible, and respected partner

CWA core program(s) supported: N/A

Task		Lead	Partners	Outputs
B1a)	Develop a communications plan	MBP staff	RSPs, others	- Communications Plan completed
B1b)	Report widely on program efforts and achievements	MBP staff, EPA, RSPs	Partners, MBP Management Committee	 MBP identity materials developed Newsletter published quarterly Website updated quarterly NEPORT and other EPA data reported annually
B1c)	Define values, interests, and capacities of constituents	MBP Management Committee, MBP staff	RSPs, others	Stakeholder assessment completed
B1d)	Ensure that MBP is driven by consensus of partners and constituents	MBP Management Committee, MBP staff, RSPs		 Needs and satisfaction assessment completed
B1e)	Develop a means of measuring the quality and extent of constituent engagement and satisfaction	MBP staff	RSPs, MBP Management Committee, partners	- Indicators developed
B1f)	Recognize contributions of constituents and partners	MBP staff, MBP Management Committee, RSPs	Partners	Stephan Gersh award presentedDocument guidelines and history of the award process

Page 23

Goal B: Build organizational effectiveness for the Massachusetts Bays Program

Objective B2: *Identify and pursue alternative funding*

Description: The MBP will complete a Finance Strategy that will articulate an array of potential sources and strategies for securing funding for the implementation of program activities.

Outcomes:

- <u>Short-term</u>: Funding priorities and potential funding sources and partners are identified
- <u>Intermediate</u>: Funds are sought to carry out project implementation
- Long term: MBP is sufficiently funded to implement its work

CWA core program(s) supported: N/A

Task		Lead	Partners	Outputs
B2a)	Develop a financial strategy that will	MBP	MBP Management	 Finance
	enable effective MBP program	staff,	Committee	Strategy
	implementation	RSPs		Completed

Goal B: Build organizational effectiveness for the Massachusetts Bays Program

Objective B3: Ensure effectiveness of MBP structure for program implementation

Description: During the coming year, the MBP will undergo some close self-scrutiny in order to rearticulate its structure, governance, and relationships with key partners. The scope and role of the Management Committee will be more clearly defined, and several guidance documents will be produced and approved by consensus of the Management Committee. Regional Service Providers will be installed following a process of competitive bidding.

Outcomes:

- <u>Short-term</u>: Measures are taken to clarify roles and responsibilities of MBP staff, committees, and partners
- <u>Intermediate</u>: Management Committee and any relevant sub-groups are engaged in program planning and implementation
- Long term: MBP is effective in meeting the objectives of its CCMP and is adequately represented by constituents and partners

CWA core program(s) supported: N/A

Task		Lead	Partners	Outputs
B3a)	Articulate MBP's intermediate- term priorities and objectives	MBP staff	RSPs, partners	- Final Strategic Plan for 2009- 2012 completed
B3b)	Roles and responsibilities of MBP staff, Management Committee, RSPs, and any other key partners are articulated and agreed upon by consensus	MBP staff, MBP Management Committee	RSPs, partners	- Roles and responsibilities document completed
B3c)	Management Committee is actively and effectively engaged in providing direction for the MBP	MBP staff, MBP Management Committee		 Bylaws developed for Management Committee operation Management Committee membership increases
B3d)	Subcommittees are identified and convened	MBP staff, MBP Management Committee	RSPs, partners	- Terms of Reference prepared
B3e)	Detailed Work Plans are developed for each RSP	MBP staff, RSPs	MBP Management Committee	- Scopes of work completed for RSPs

C. Previous Year Activities

1. Goals and accomplishments

It may be useful to reiterate that in the past, the MBP planned and reported solely on the CCMP action areas (currently Strategic Plan Objectives A1-A7) and not on the organizational objectives (currently Strategic Plan Objectives B1-B3). In the future, we will report on both.

However, for the purposes of appreciating the more technical contributions that our RSPs have addressed this past year, it is interesting to note that technical priorities differ across regions, thus giving some rationale for the MBP's having a number of priority action areas. The following table summarizes the areas for which each RSP has reported achievement in FY08.

	Objective under which work was proposed in FY08	Upper North Shore	Salem Sound	South Shore	Cape Cod
	CCMP Goal 2: Protect and enhance shellfish resources			$\sqrt{}$	
	CCMP Goal 3: Protect and enhance coastal habitat	V	$\sqrt{}$	$\sqrt{}$	\checkmark
	CCMP Goal 4: Reduce and prevent stormwater pollution	V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
CCMP priority action goals	CCMP Goal 7: Manage municipal wastewater	V	√		√
detion godis	CCMP Goal 14: Manage local land use and growth	V	√		
	CCMP Goal 16: Manage marine invasive species		√	√	√
	CCMP Goal 17: Monitor marine waters			√	√
Other CCMP goals	CCMP Goal 13: Planning for a shifting shoreline			√	√
worked on in 2008	CCMP Goal 15: Enhancing public education and participation	√	√	√	√

The following pages include a more detailed summary of the particular activities on which MBP's Central Staff, four Regional Service Providers, and the Massachusetts Bays Estuary Association worked during the past year. The "Activities" are extracted largely from the FY08 Work Plan, although new activities, not previously articulated, have been added as well. These are prefaced with the word "NEW" at the beginning of the activity description.

MBP Annual Work Plan, FY10 Page 26

Region	Activity	Partners	Milestones	Outputs
CCMP (Goal 2: Protect and enhance shellfish resource	s		
Cape Cod	 Sponsor and organize public workshop on shellfish and water quality Continue fecal coliform sampling with 	 Barnstable County Coastal Resources Committee, Extension Service, and Shellfish Advisory Committee DMF, Town of Marshfield 	 Postponed to 2009 due to turnover in County shellfish staff; workshop to be held later in 2009 Potential reduction of 	- Fecal coliform data
Shore	DMF for opening of shellfish beds	Bivil, 10 wil of maismining	shellfish closures	Total Collidin data
	Goal 3: Protect and enhance coastal habitat			
Cape Cod	Assist Sandwich with grant-writing assistance and monitoring assistance to install and monitor new fish ladder that restores diadromous fish access to 20-acre spawning pond	Sandwich DNR, DMF, USFWS, NRCS, Town of Sandwich, GOM Council, NOAA Habitat Restoration Partnership, National Ass'n of Counties, Barnstable County	 3-year monitoring program begins Spring 2009 New fish ladder to be installed Spring 2009 On track to help towns write progress report for GOM grant Spring 2009 	 O&M plan for fish ladder More than \$78K in funding for fish ladder
Cape Cod	Assist Town of Brewster with Stony Brook salt marsh restoration feasibility assessment and herring run improvements; Assist Town with project management including project coordination, conducting technical studies (wetland assessment, herring counts), grantwriting and outreach	- Town of Brewster DNR, GOM Council, NOAA Habitat Restoration, WRP, CWRP, Town of Brewster Alewife Committee, Cape Cod Museum of Natural History, USFWS, Brewster Conservation Trust, Compact of Cape Cod Conservation Trusts, DMF	On track to assist WRP and Town with grant applications in spring 2009 Final modeling of restoration options to be completed and option selected by Spring 2009 On track to assist WRP and Town with grant applications in spring 2009 On track to assist WRP and Town with grant applications in spring 2009	 Final grant reports for GOM Council / NOAA grant for feasibility study \$10K grant amendment for additional modeling Permit application to MA Historical Commission \$20K of private foundation funding Corporate donation of \$15K Submitted grant application to FishAmerica Foundation for \$15K
Cape Cod	Assist in revising Brewster wetland bylaw and regulations	- Brewster Conservation Commission	Town has put this project on hold indefinitely	-
Cape Cod	Continue to provide volunteer-based salt marsh monitoring of sites identified by	- WRP, GOM Council / NOAA Habitat Restoration Partnership,	Pre- and post-restoration monitoring data collected at	Data are input into CZM's MarshDB

Region	Activity	Partners	Milestones	Outputs
	the WRP as priority salt marsh restoration sites. This volunteer-based monitoring program has been providing monitoring of salt marshes on Cape Cod since 2003. Provide monitoring data to agencies under a state-approved QAPP	private foundations	seven priority salt marsh restoration sites	database
Cape Cod	NEW: monitor climate change effects on salt marshes	- WRP, MBP Climate Ready Estuaries Pilot Project	Proposal to fund mapping and monitoring of coastal embayments where salt marsh retreat can occur as sea level rises due to climate change	- Submitted full proposal March 2009
Cape Cod	Continue to build and support volunteer herring count program in Brewster; use data to build public support for restoration, help fisheries managers in decision-making, and grant support. Winter-spring 2007	- Town of Brewster Alewife Committee, GOM Council / NOAA Habitat Restoration Partnership, DMF, UMass Amherst, Stony Brook Herring Monitors, Cape Cod Museum of Natural History, private foundations	 Monitoring data supports grant-writing (MET, GOM Council/NOAA, foundations) Draft and Final Herring Monitoring Reports for 2007 and 2008 submitted to Town of Brewster and GOM Council 	 Presentations at Cape Cod Natural History Conference and MBP fall meeting Web page on APCC website Monitoring reports
Cape Cod	 Continue to manage herring run videomonitoring program at Stony Brook Brewster as a backup for volunteer counts Develop protocol for videomonitoring. Continue to work with UMass Amherst scientists and DMF to develop herring videomonitoring as a herring count methodology 	Brewster Alewife Committee, Cape Cod Museum of Natural History, private foundations	_	- Same as above
Cape Cod	Support the volunteer herring count program in 2008 by providing training and equipment and data management	Town of Orleans Shellfish and Waterways Advisory Committee	New programs in Wellfleet, Chatham, and Harwich, ongoing programs in Brewster and Orleans	 Herring and American eel count data Presentation to volunteers at a fall Volunteer Appreciation Event
Cape Cod	NEW: Encourage Sandwich DNR to initiate new herring count program in	Town of Sandwich Department of Natural Resources, GOM	- In development, monitoring to begin in Spring 2009	- Grant Progress Report to the GOM

Region	Activity	Partners	Milestones	Outputs
	Sandwich Mill Creek Estuary to support fish run restoration activities - Assisting Town DNR with project management of two grants for fish ladder replacement	Council / NOAA Habitat Restoration Partnership, National Ass'n of Counties / NOAA Community-Based Restoration Partnership, Barnstable County Commissioners, DMF, USFWS, USDA NRCS	- Monitoring on restored herring run when fish ladder is completely installed by mid-June 2009	Council on results of first 6-months work
Cape Cod	Assist communities to update wetland bylaw and regulations	-	- On hold indefinitely, other groups are working on this	-
Cape Cod	Continue to provide outreach on the proposed Cape Cod Water Resources Restoration Project to restore impaired fish runs, mitigate stormwater outfalls and restore restricted salt marshes throughout Cape Cod	Barnstable County Coastal Resources Committee and County Commissioners, 15 towns and many agencies and organizations on Cape Cod	_	 List of coalition of supporting organizations; support letters List of projects sent to state for consideration for federal infrastructure funding
Cape Cod	NEW: Assist Towns with grant-writing for new restoration projects	- Wellfleet Conservation Agent, Brewster DNR, GOM Council / NOAA Habitat Restoration Partnership, WRP, NOAA Habitat Restoration staff	 Initiated Freeman's Pond restoration feasibility study submitted to GOM Letters of Intent for Mayo Creek restoration feasibility study 	 Letters of Intent Freeman's Pond restoration feasibility study
South Shore	Assist Town of Pembroke in evaluating the potential for stream restoration and improvement in the Herring Brook	- DMF, Town of Pembroke	- Improved fish ladder	-
South Shore	Continue efforts to restore fish passage in First Herring Brook, including habitat monitoring	First Herring Brook Watershed Initiative, CZM, DEP, DMF, Riverways, TNC, NOAA Restoration Center, Town of Scituate, SEI, Tufts University, USFWS	_	 Habitat monitoring data Water use model Restoration plan
South Shore	Provide technical and grant-writing assistance to towns to adopt Open Space Plans, local Wetlands Bylaws, mapping	Towns of Hanover, Scituate, Marshfield, Norwell	-	Stormwaterbylaws/regulationsHabitat

Region	Activity	Partners	Milestones	Outputs
	tools, specially designated areas, and other habitat protection tools			Management Plans
South Shore	Promote local coastal land restoration by continuing to expand the role of volunteers and local officials in assessing and monitoring habitats	Towns of Hanover and Norwell, Riverways Program, WRP	-	Habitat monitoring data
South	 Work to restore tidally restricted wetlands 	- WRP	-	_
Shore	on the South Shore			
South Shore	Continue assisting dam owners with fish passage restoration	 Jones River Watershed Ass'n, Towns of Plymouth, Kingston, Norwell, Hanover, Marshfield, Scituate 	-	-
Salem Sound	Organize stream teams for the rivers of Salem Sound and maintain existing stream teams, the Manchester Coastal Stream Team and the North River Stream Team, to conduct shoreline surveys, develop and implement action plans, and serve as a consistent, sustainable stewardship force for the rivers	Manchester Coastal Stream Team, North River Stream Team	 Met monthly with MCST to work on action items Team members conducted water quality testing Conducted North River cleanups Manchester water quality report to Board of Health and Selectmen 	Data, water quality reportCleanups
Salem Sound	Provide technical assistance, develop monitoring plan (QAPP) for neighborhood groups and conservation commissions concerned with the condition of fresh water coastal ponds and rivers in Marblehead and Peabody and lead monitoring efforts	Marblehead Conservation Commission, Peabody Public Works	 Marblehead Conservation Commission decided not to conduct pond surveys or monitoring Peabody is in process of hiring a new Public Works director 	-
Salem Sound	Train volunteers and local officials in the Wetlands Health Assessment Toolbox program; monitor wetlands in need of restoration or following restoration	- WRP, SSCW volunteers, Endicott College ecology students	 Training completed, monitoring ongoing Monitored three salt marshes for salinity, vegetation, nektons and macroinvertebrates 	- Data entered into CZM's MarshDB
Salem Sound	Initiate diadromous fish/river restoration and/or monitoring projects	- DMF	Not feasible at this time, although DMF monitors smelt from March to May in three SS locations	-
Salem	 Study control methods for <i>Phragmites</i> 	 GOMC, Salem State College 	 Completed study of control 	 Restored half acre

Region	Activity	Partners	Milestones	Outputs
Sound	australis		methods	
Salem Sound	Conduct a Perennial Pepperweed awareness and control campaign across Mass Bay	Did not get funding from NFWF PTI but applied to Five Star	 Removal at four sites in Salem Harbor Member of the regional pepperweed working group Distributed pepperweed posters 	- Pepperweed poster
Salem Sound	Conduct shellfish and worm survey of recently restored intertidal mudflats at Mill Pond, Gloucester	- WRP, NOAA Restoration, CWRP, City of Gloucester	 Completed first of three years of monitoring submitted Quality Assurance Project Plan to DEP and EPA 	- Year 1 final report
Salem Sound	Assist with permitting, project management, and stakeholder participation for Thissell Marsh Restoration Project, Beverly	- WRP, Endicott College	 Permitting complete for 5- acre restoration of salt marsh Seeking \$1.5 million funding for construction 	_
Salem Sound	- Coastal cleanups	- General public, SSCW members	-	- Conducted six cleanups along rivers, beaches and islands
Salem Sound	NEW: Horseshoe Crab Spawning monitoring	DMF, Pickman Park Neighborhood	-	Report on monitoring of spawning horseshoe crabs at Pickman Park
Upper North Shore	Continue to chair Restoration subcommittee for Ipswich River habitat restoration projects	Ipswich River Watershed Ass'n, Riverways, WRP, North Shore Fly Fishermen	Restoration Workplan developed	- 2009 Restoration Work Plan
Upper North Shore	 Partner with WRP on Coastal Habitat and Restoration Plan for 8T&B communities/Great Marsh Push forward the Town Creek, Salisbury, Newman Road, Newbury, and the Wingaersheek restoration projects and development of NAWCA grant Develop additional Great Marsh restoration site teams for other high priority sites on the WRP list. Work to initiate new projects in Rowley, Essex, 	- WRP, NOAA, 8T&B towns	 Various projects in various states of design or implementation Of the Great Marsh sites, preliminary assessment of projects resulted in only two of those projects moving forward; Kent's Island and Governors Academy, both in Newbury 	

Region	Activity	Partners	Milestones	Outputs
-	Newbury and Ipswich			_
Upper North Shore	Work with the Gloucester Restoration Team (coastal restoration stakeholders and city of Gloucester officials) to prioritize and implement Gloucester restoration projects for funding Sleepy Hollow, Wingaersheek, Mill Pond, Days Pond, Mass Ave expansion)	- NOAA, WRP, City of Gloucester	 Sleepy Hollow and Days Pond implementation on hold Wingaersheek in design and pre-permitting Mill Pond in permitting and funding phase 	-
Upper North Shore	Coordinate volunteers for 2009 Alewife Brook Herring Run count	- MAS, Town of Essex, Chebacco Lake Ass'n	 Assembling volunteers Developing outreach Fish passage data to be collected 	-
Upper North Shore	Assist Ducks Unlimited and the Parker River Wildlife Refuge in developing and implement emergent Phragmites control efforts in the Newbury Great Marsh	- Ducks Unlimited, PRNWR, Town of Newbury, MAS, ECGB, MADFW, WRP	 Round 1 of control completed Preliminary assessment of effectiveness underway Precontrol (fire) for Round 2 	-
Upper North Shore	Collect salinity data in the marsh area and tidal creeks of the Great Marsh to support Phragmites control efforts	_	Pore salinity collected and assessedOutreach materials developed	Monitoring PlanWork scope for 2009 field season
Central Staff	 Regional Wetland (Salt Marsh) Monitoring Protocol Developed a draft set of standard protocols for assessing the response of salt marsh wetlands to stressors Develop a manual for assessing coastal wetlands based on the research efforts to date Develop a system for freshwater systems 	CZM, EPA-ORD, New England Interstate Water Pollution Control Commission, CZM, UMass Amherst, DEP	 Materials developed and training provided on use Manual completed Thirty members of New England Biological Assessment of Wetlands Working Group were trained to use the manual for possible adaptation in their own states Grant received from EPA and Work Plan developed and designed for field work QAPP developed Rapid Assessment Manual developed Freshwater protocol in 	 Rapid assessment manual and QAPP completed 30 persons trained

Region	Activity	Partners	Milestones	Outputs
			development	
Central Staff	 Develop more protective water quality standards Obtain targeted WQ monitoring data and information for compiling in the CZM WQ monitoring database Review and provide comments on similar approaches by NH Dept of Environmental Services and UNH efforts Continue to enhance technical capacity of the MBP to maintain relevant state-of-the-art autonomous monitoring in coastal systems 	- МВР	- On hold until other funding opportunities present themselves	- Proposal submitted to DEP
Central Staff	 Continue surveys for potential stressors in marsh systems to identify any possible "dieback" conditions during the summer of 2008. Photo-documentation will continue to augment information collected in summer 2006 and 2007 	-	Discontinued due to consensus among the scientific community that "dieback" issues were a real and definable phenomenon	_
CCMP (Goal 4: Reduce and prevent stormwater pollu	tion		
Cape	Stormwater utilities: Continue to provide outreach to towns, local decision makers, and the public on the need for stormwater financing, particularly stormwater utilities. Start with Phase II NPDES coordinators. Investigate combined utility for wastewater and stormwater. Continue to find funding for stormwater utility outreach program. Continue to build resource collection	Cape Cod Commission, Waquoit Bay Coastal Training Program, CZM NPS, program, Barnstable County Coastal Resources Committee, MET, private foundation	 Held Stormwater Financing Workshop in January 2009 Yarmouth applied for funding to conduct Stormwater Utility Feasibility Study, other towns interested Stormwater Utility Resources on CD, distributed to towns, workshop participants Convening meeting with Phase II coordinators to define regional interest and regional needs to prepare for grant writing 	 Stormwater Management Needs Survey of Towns Web page on APCC website Workshop held Resources CD developed
Cape Cod	 Stormwater grant-writing assistance: Continue providing assistance to towns, 	- Cape Cod Commission, CZM	Meetings with Phase II coordinators in 2008 and	-

Region	Activity	Partners	Milestones	Outputs
	County and other agencies to improve their stormwater proposals to CZM, 319 program, etc. Continue working with CZM to identify priority projects		2009 to discuss needs and potential grant applications - APCC will provide \$2K match (in-kind services) to Yarmouth for stormwater utility feasibility study funded by Cape Cod Commission in Feb 2009	
Cape Cod	Stormwater outreach: Work with MBEA to distribute Think Blue outreach materials promoting stormwater management	- Town of Barnstable DPW, MBEA	Think Blue outreach materials distributed at outreach events	-
South Shore	- Continue work on EPA 104b3 grant to implement raingardens in 11 South Shore towns	- Weir River Estuary Center, Weir River Watershed Ass'n, Hull Garden Club, Gratta Excavation, Maria Weston Chapman School, JF Price, Hingham Public Library, Hingham DPW, South Shore Perennial Gardeners, Kennedy's Country Gardens, Grace Farrar Cole School, Norwell HS, First Congregational Church, Hanover Garden Club, Walnut Hill Garden Club, Green Connection, Wyman's Garden Center, Lydia Drake Library, Scituate HS, Riverways Program, First Herring Brook Watershed Initiative, MAS, Bay Farm Montessori Academy, Jones River Watershed Ass'n, Kingston DPW, Plimoth Plantation, Plymouth County 4H	- Completed	- 11 Raingardens
South Shore	Continue work on implementation of LID Demonstration sites in Kingston and Pembroke	- Town of Kingston, Kingston Intermediate School, CEI	 Ongoing Developed and presented outreach materials 	Lesson on stormwater,Map of BMPs and informational brochure

Region	Activity	Partners	Milestones	Outputs
South	- Continue assisting with Think Blue	-	- On hold	 Workshop on BMP maintenance BMPs installed at KIS
Shore South Shore	campaign. Assist with GIS mapping of stormdrains	-	No towns requested this FY	_
South Shore	Continue assisting with Greenscapes on the South Shore	- Regional communities	-	-
South Shore	Assist SS towns to implement Greenscapes Model Bylaws and Stormwater Bylaws	 Towns of Scituate, Marshfield, Cohasset, MAPC, Horsley- Witten Group 	-	Stormwater or Landscaping bylaws and regulations
South Shore	NEW: Continue monitoring local waters for stormwater pollution	 Towns of Marshfield, Scituate, Pembroke, Norwell, Hanover 	Locations of potential bacterial sources identified	- Monitoring data
Salem Sound	Provide technical assistance and grant writing support for implementing the stormwater policy, stormwater utilities, Phase II requirements, and resource protection efforts, including ensuring stormwater mitigation in development and redevelopment plans	 Working with Peabody to fund and implement stormwater mitigation and best management practices at the Welch School, Strongwater Brook 	 Attended planning and conservation commission meetings to ensure stormwater mitigation Assisted Peabody on two grants, neither funded 	- Grant applications
Salem Sound	Provide workshops or other technical assistance to train local officials on the implementation of the DEP Stormwater Policy, Stormwater Phase II requirements, LID and stormwater utilities	- 8T&B, MBP, Horsley Witten Group	North Shore Stormwater Financing Workshop to be held on April 30	- Workshop materials
Salem Sound	Develop Greenscapes outreach materials, pilot demonstration sites, and provide training and workshops.	 Greenscapes North Shore Coalition, Greenscapes Coalition; participation by 16 communities, landscape professional volunteer 	 Conducted 8 Greenscapes workshops for over 200 homeowners Presented 1 workshop for landscape professionals 	- Presentations
Salem Sound	Continue to identify bacterial contamination at streams and outflows to Salem Sound beaches by conducting water quality testing	- Clean Beaches & Streams monitoring volunteers	 Completed, but program is ongoing Conducted bacterial testing at 27 sites from July and August 2008 and June 2009 	-
Salem Sound	Continue to work with region's health agents to identify public education /	 Health agents and Public Works directors from four towns; 	Notified network of high levels of bacteria at five sites	-

Region	Activity	Partners	Milestones	Outputs
	awareness issues associated with beach water quality and develop outreach and distribute educational materials associated with SSCW's "Make the Stormwater Connection" campaign		and continue to look for solutions; conducted public outreach via new media, website and public presentations	
Salem Sound	Based on Salem's success with solar powered trash compactors (Big Belly), encourage other Salem Sound communities to purchase street trash compactors to minimize trash being washed or blown into rivers and ocean	City of Salem purchasing and maintenance	Salem's success used as role model for other watershed communities	Nine solar powered trash compactors purchased in Salem
Upper North Shore	Coordinate with Town of Ipswich on Farley Brook stormwater bylaw development	- Town of Ipswich	- On hold due to personnel & budget issues	- Stormwater bylaw
Upper North Shore	Continue the development and expansion of the Greenscapes North Shore Program. Expand program to all 8T&B and MVPC communities to assist them in meeting their Phase II stormwater plan.	Greenscapes North Shore, 8T&B and MVPC participating communities	 Six communities enlisted in the program, one which is new 1 town doing SW infrastructure mapping 	Workshop series developed and delivered
Upper North Shore	Participate in Think Blue Massachusetts	- MBEA, MBP	- On hold	-
Upper North Shore	Work with the Merrimack River Watershed Council on implementing a water quality monitoring plan for the Merrimack River	- MRWC, DEP	- On hold due to lack of funds	-
Upper North Shore	Work with Gloucester, Ipswich, and Newburyport on investigation of instituting a stormwater utility	- 8T&B towns, SSCW	Outreach materials developed and presented	- Workshop April 2009
Upper North Shore	Chair 8T&B region DPW Network meetings to discuss issues, concerns, and ideas related to the implementation of DEP/EPA approved Phase II plans as well as stormwater priority problem sites in the 8T&B region and Low Impact Development stormwater mitigation practices	- 8T&B towns	On hold due to local unavailability	-
Central	 Continue to work with CZM staff to 	 Local municipalities 	 Two financing workshops 	 Workshop materials

Region	Activity	Partners	Milestones	Outputs
staff	provide technical and educational assistance to local communities for the implementation of local stormwater programs, including the development of stormwater utilities and stormwater drain mapping		held on Cape Cod and on the North Shore	- Workshops January (Cape Cod) and April (North Shore)
Central staff	 MBP will continue to assist DEP with revisions to the state stormwater program, as needed 	- CZM, DEP	Revisions completed and public meetings held	-
Central staff	 Work with the Stormwater Interagency Action Team to improve coordination, information sharing, and better implementation of state stormwater policy Assist with reviews of grants for stormwater improvements 	CZM, Stormwater Interagency Action Team	 CPR grant proposals were reviewed and selected for funding Ongoing 	_
CCMP G	Goal 7: Manage municipal wastewater			
Cape	- Help designate Cape Cod Bay as a NDA for boat sewage	- NDA Working Group (CZM, APCC, MBP, Nantucket Sound Keepers, Barnstable, EPA), Boards of Selectmen, Harbormasters, Barnstable County Coastal Resources Committee	 Worked with CRC to identify stormwater outfall remediation projects eligible for federal funds and sent request to Governor's office in January 2009 NDA designation for CC Bay in July 2008 Supported state legislation for improved NDA enforcement Meetings with stakeholders to build support for designating NDA on south coast Data collection 	 New pumpouts in three towns Community outreach, community support letters, NDA application, outreach materials
Cape Cod	 Continue working with the Barnstable County Water Protection Collaborative to build public support for regional wastewater management and sewering 	Barnstable County Water Protection Collaborative	 Participation in regular Water Protection Collaborative meetings 	-
Cape Cod	 Continue providing "CapeKeepers" wastewater education program, working 	Waquoit Bay NERR and Coastal Training Program,	- Co-sponsored Wastewater Financing Workshop in	- Workshop materials

MBP Annual Work Plan, FY10
Page 37

Region	Activity	Partners	Milestones	Outputs
	with project partners (see 2006-2007 Achievements) to build public support for regional wastewater management	MET, Barnstable County Water Protection Collaborative	April 2008 - Train-the-trainer workshops in training speakers on wastewater management, 2006, 2008	
Cape Cod	NEW: Provide general outreach on the need for regional wastewater management and sewering to improve water quality	Private foundations, local cable TV stations	Video is being distributed to local cable TV stations	Video on impact of septic systems on shellfish beds and water quality created in 2008
South Shore	Assist in outreach efforts to publicize Cohasset/Scituate/Marshfield NDA	Cohasset, Marshfield, Scituate harbormasters and waterways committees (support), Bilezikian Foundation (funding)	- Ongoing	NDA Outreach brochure and laminated cards
Salem Sound	Write a Salem Sound NDA application on behalf of the five coastal communities of Salem Sound	Salem Sound Working Group of harbormasters and boaters; CZM; EPA	CompletedSalem Sound approved as a NDA	-
Salem Sound	Continue to distribute educational materials explaining NDA and locations of pump-out facilities and the 3-mile limit for no discharge with the pump-out services (hours, call number, etc) to Salem Sound boaters	Coast Guard AuxiliaryHarbormastersYacht clubs		 Marina and Yacht club poster on NDA designation distributed Public presentation to Palmer Yacht Club
Salem Sound	Provide classroom boat pump-out curriculum to Coast Guard Auxiliary and Power Squadrons to be included in the regular boater education programs	- Coast Guard Auxiliary	 Completed PowerPoint presentation that Coast Guard Auxiliary uses in regular boater education classes 	- PowerPoint presentation
Upper North Shore	Develop an outreach and education plan for establishing a NDA for the 8TB coastal communities and begin the data collection necessary for the NDA application	- EPA, CZM, 8T&B towns	NDA Designation for the Upper North Shore and the Lower Merrimack River	-
	Goal 13: Planning for a shifting shoreline			
All regions and central	Assist in facilitating regional discussion of measures to adapt to climate change on Cape Cod as part of MBP update of CCMP to address climate change and	- EPA, CRE team, Management Committee, RSPs, EPA, ICLEI, CZM, others	 EPA developing a vulnerability assessment for the salt marsh ecosystem Participated in workshops 	Conceptual modelsDraft scope of work for MBP climate group

Region	Activity	Partners	Milestones	Outputs
staff	make MBP a "Climate-Ready Estuary"		 Participated in CRE planning Provided information on regional issues, experts Presentations made to several groups on climate change adaptation and local/regional efforts Participated in numerous workshops and conferences to learn more about adaptation planning 	
Cape Cod	- NEW: Assist with Storm Smart Coasts	- CZM Storm Smart Coasts, Town of Falmouth DNR	 Expect to transfer work product to other Cape Cod towns as applicable Two proposals for towns to obtain technical assistance from CZM StormSmart Coasts staff, one was funded 	- Proposals for StormSmart Coasts assistance
Cape Cod	NEW: Assist towns with pre-disaster hazard mitigation planning	Towns of Provincetown, Falmouth, Barnstable County Coastal Resources Committee, Cape Cod Commission	Request to CZM Storm Smart Coasts to facilitate transfer of Storm Smart Coasts work product for Falmouth to other towns	Letter of support for Provincetown's application
	Goal 14: Manage local land use and growth			
Salem Sound	Hold workshops and provide networking opportunities for municipalities regarding locally implementable smart growth tools, including bylaws	- Riverways	- Completed	- MEPA training session for 35 people
Salem Sound	Take active role in municipal committees such as Open Space and Recreation Committee, Lakes and Ponds Management, and Harbor Plan Implementations	Committees for Salem Harbor Master Plan, Salem Open Space Plan, Marblehead Open Space Plan	All master plans completed and approved	-
Salem Sound	Conduct educational seminars for local resource managers (Con Coms, Cons agents, consultants, city councilors, etc.) and citizens on various topics including current wetland regulations, flooding	EPA Climate Ready Estuaries; MAPC, CZM	Climate change adaptation workshop held in March 2009	- Workshop materials

Region	Activity	Partners	Milestones	Outputs
	solutions, and others			
Salem Sound	Provide technical assistance to neighborhood groups in Manchester, Danvers, Beverly, Peabody, Marblehead and Salem that are concerned about local conservation issues and development proposals	Federal Street Neighborhood group; South Salem Neighborhood Ass'n; North Fields Neighborhood Group	_	- ENF comment letters
Salem Sound	Share SSCW's regional Forest Resource Map, individual maps, and educational materials that highlight the role trees play in slowing and reducing stormwater runoff	- DCR	 Participated in public events and presentations as well as with Greenscapes 	_
Salem Sound	Research potential climate change impacts that will affect local land use, infrastructure and natural resources; conduct workshops on the findings; encourage inclusion of research results into zoning, land use and infrastructure planning and development.	EPA Climate Ready Estuaries; MAPC, CZM	Climate change adaptation workshop held in March 2009	- Workshop materials
Salem Sound	NEW: Discuss land conservation and conservation restrictions for key parcels within Salem Sound	- Essex County Green Belt	- Beginning discussion	-
Salem Sound	NEW: Promoting environmental responsible flood mitigation	-	- Completed	ENF comment letter on City of Peabody North River Flood Mitigation Project
Salem Sound	NEW: Facilitate renovation of a community park along the South River	- SSCW, City of Salem	 Facilitation completed Design and construction of community pocket park on the South River 	-
Salem Sound	NEW: Facilitate development of a community park along the South River	Neighborhood residents, City of Salem	 PARC grant received by City to renovate park and river's edge Two neighborhood meetings 	Plan for Furlong Park improvements
Salem Sound	NEW: Facilitate development of a community park along the North River at 45 Walnut Street	Community Development and Planning, City of Peabody	Neighborhood meetingCity Council meetings	- Support letters for PARC grant and to City Council
Upper North	Serve as demonstration site leader for the 8T&B LID demonstration site	Ipswich River Watershed Ass'n, Greenscapes North Shore, DCR	-	- LID and Greenscapes

Region	Aci	tivity	Par	tners	Mi	lestones	Ou	tputs
Shore								demonstration sites
Upper North Shore	-	Present local Sea Level Rise information and work with communities on possible mitigation potentials	-	8T&B Communities, MBP	_		-	Outreach information on CRE and sea level rise
Upper North Shore	_	Participate in the EEA Low Impact Development (LID) working group and as a member of the "local implementation" task force	_	Multiple state, federal, and local partners	ı	On hold due to task force seemingly defunct	_	LID outreach events and products
Upper North Shore	-	Participate in North Shore Task Force for Smart Growth and Municipal Planning	_	Southern Essex County Communities, MAPC	-	Information exchange on a variety of local community issues	-	
Upper North Shore	-	Continue membership on the Great Marsh Coalition for stewardship of the Great Marsh (development of third annual Great Marsh Symposium).	-	Great Marsh Coalition (MAS, ECGB, ECF, TTOR, ENHC, etc)	-	Formation of the GM Land Preservation Committee GM Restoration Team	-	Great Marsh outreach events
Upper North Shore	-	Participate in Essex County Forum Smart Growth Workshops	-	ECF	-	Participated in several events	-	Workshops and outreach events
CCMP (Goal	15: Enhancing public education and partic	cipati	ion				
Cape Cod	-	Provide outreach to build public support for designation of Cape Cod Bay as a NDA	_	NDA Working Group (CZM, APCC, MBP, Nantucket Sound Keepers, Barnstable, EPA), Boards of Selectmen, Harbormasters, Barnstable County Coastal Resources Committee	1 1	NDA designation Meetings with Harbormasters and Towns	-	Outreach materials on NDA requirements
Cape Cod	- - -	Stormwater utilities: Provide outreach to towns, local decision makers, and the public on the need for stormwater financing, particularly stormwater utilities. Start with Phase II NPDES coordinators Investigate combined utility for wastewater and stormwater Continue to find funding for stormwater utility outreach program Continue to build resource collection Provide two outreach workshops with invited speakers and start developing	_	Cape Cod Commission, Waquoit Bay Coastal Training Program, CZM NPS program, Barnstable County Coastal Resources Committee, MET, private foundation		First workshop completed, outreach ongoing Developed Stormwater Management Needs Survey for Towns Conducted Survey and obtained 33% response from towns Held Stormwater Financing Workshop in January 2009 As a direct immediate result of workshop, one town (Yarmouth) applied for	-	Stormwater Utility Resources on CD Web page on APCC website

Region	Activity	Partners	Milestones	Outputs
Cape	Model Stormwater Utility Plan - Wastewater outreach - APCC continues	Barnstable County Water	regional funds to conduct Stormwater Utility Feasibility Study in January 2009 - Convening meeting with Phase II coordinators to define regional interest and regional needs to prepare for grant writing - Workshop held, outreach	Workshop materials
Cod	outreach as a partner with the Water Protection Collaborative and the County	Protection Collaborative, Waquoit Bay NERR and Coastal Training Program, MET	ongoing - Wastewater Financing workshop in Spring 2008 - Ongoing participation in WPC - "Train the trainer" workshops in early 2008	- Workshop materials
Cape Cod	Growth management, APCC continues its work on supporting growth management initiatives and outreach, working with the Business Roundtable and others.	Cape Cod Business Roundtable, Towns of Wellfleet and Brewster	 Participation in and staff support for the Cape Cod Business Roundtable meetings held on a regular basis Passage of zoning reform bylaws in Brewster and Wellfleet 	
Cape Cod	Continue building support for herring run stewardship	- DMF, NOAA Habitat Restoration staff, Town Herring Wardens and DNR directors in Brewster, Orleans, Wellfleet, Chatham, Harwich, Sandwich, Harwich Conservation Trust, Brewster Alewife Committee, Orleans Waterways, Shellfish Advisory Committee, GOM Council, private foundations, other MBP regions, MET	 Planning for 3 new herring count programs in Wellfleet, Chatham, and Harwich Received \$20K funding from private foundation for climate change monitoring of fish runs by volunteers 	 Herring monitoring data for Brewster and Orleans Proposals for funding fish run monitoring by volunteers, (GOM Council, MET, others) Presentation at Cape Cod Natural History Conference on Brewster program
Cape	- Stormwater outreach: Work with	- Town of Barnstable DPW,	 Participation in Think Blue 	 Participation at

Region	Activity	Partners	Milestones	Outputs
Cod	MBEA to distribute Think Blue outreach materials promoting stormwater management	MBEA	event/booth at water fairDistribution of outreach materials at different venues	water fair
Cape Cod	Provide editorial support for Greenscapes, an outreach program that teaches landowners about environmentally friendly products and methods to use on their properties	- MBEA	Offered assistance with editing in 2007 and 2008, offer was not taken up	- Greenscapes materials
Cape Cod	Provide website and newsletter information on various MBP projects	- APCC	-	- Webpages on MBP, MBP Cape Cod region Achievements, Stormwater Utilities, Herring Runs and Volunteer Counts, and other MBP activities
Cape Cod	Continue to support and encourage local coastal organizations to achieve CCMP goals for Cape Cod Bay	 Barnstable County Coastal Resources Committee, Cape Cod Commission, Cape Cod Hook Fishermens Ass'n, Compact of Cape Cod Conservation Trusts, CZM, NRCS, NDA Working Group, Orleans Shellfish and Waterways Advisory Committee, Orleans Blue Pages, Waquoit Bay NERR Coastal Training Program 	 Co-sponsorship of Wastewater Financing Workshop and Stormwater Financing Workshop with WBNERR CTP NRCS Cape Cod Water Resources Restoration Partnership coalition- building Assistance with Orleans Blue Pages, a 50-page guide on protecting water quality CRC Mission statement, Work Plan, workshops and meetings 	 Letters of support for open space acquisition grant applications NDA outreach materials Letters of support for federal infrastructure funding for restoration projects Orleans Blue Pages
Cape Cod	Continue to support and build capacity of the Barnstable County Coastal Resources Committee, the MBP Local Governance Committee for Cape Cod, and to implement its work	Barnstable County CRC (representatives from 15 towns, CZM, NRCS, APCC, Barnstable County Water Protection Collaborative, Barnstable County Extension, County Shellfish Advisory	 Reconvened group in May 2008, regular meetings now ongoing Full CRC meetings in April, July and October 2008 to discuss new CRC Work Plan, hear about state Ocean 	-

Region	Activity	Partners	Milestones	Outputs
		Committee, Cape Cod Commission, Barnstable County Commissioners	Management Plan from state officials, exchange information, hear from ad hoc county Dredging Working Group concerning towns dredging needs - Monthly Executive Committee meetings to plan work and provide MBP governance	
Cape Cod	NEW: Participate in preparing 2009 State of the Bays report from the MBP	DMF, EPA Region 1 NDA coordinator, provided information on NDAs, CZM	- Draft completed	Two draft State of the Bays chapters on NDAs and Diadromous Fish
Cape	- NEW: Professional development.	- Not applicable	 Attended workshop on "How to Manage a Dam Removal Project", November 2008 Attended "Restore America's Estuaries" conference in October 2008 Attended EPA Climate Change forum at UNH Attended workshop on emerging pollutants in wastewater at Waquoit Bay NERR in fall 2008 Attended Storm Smart Coasts workshop in 2008 	Participation in various events
South Shore	Continue to facilitate the South Coastal Watershed Network via a listserve and Green Communities Speaker Series	-	- On hold	-
South Shore	Help organize and implement annual NSRWA outreach events, such as the Great River Race, Kayak Expo, and River Camp	South Shore YMCA (camp logistics), local volunteers	-	- Public events
South Shore	Organize spring herring counts with volunteers.	DMF (protocols), Towns of Pembroke, Marshfield, Norwell, and Hanover (support)	-	- Herring count data

Region	Activity	Partners	Milestones	Outputs
South Shore	 Participate in discussions and planning for Think Blue outreach campaign with MBEA. 	-	- On hold	-
South Shore	Write multiple press releases about Mass Bays Program projects in the South Shore region	-	-	Newspaper articles, newsletter articles, e-mailed press releases
South Shore	Maintain NSRWA website and member listsery	-	-	Website and listserve
South Shore	NEW: Work with MBP to produce State of the Bays	-	-	- State of the Bays report
South Shore	NEW: Provide educational materials and lessons for local schools	 School systems of regional towns (support/logistics) 	-	- Multiple watershed science presentations
Salem Sound	- Hold annual North River Awareness Week, designed to highlight the ecological, biological, and historical, and recreational values of the North River, and the role of neighborhood residents in shaping the River's future	DMF; Witchcraft Heights School, businesses along the river	- Completed	Public involvement and awareness of the North River
Salem Sound	Conduct Natural History Outings for residents of the region through field trips designed to increase awareness and understanding of the watershed's natural resources	General public and SSCW members	-	Four field trips to rivers and salt marshes
Salem Sound	Hold annual Appreciation Night to celebrate the role volunteers and members play in protecting the natural resources of the region	Peabody Essex Museum, Salem State College, general public and SSCW members	- Completed	- Evening event
Salem Sound	Publish and distribute newsletter, Salem Sound Monitor, and monthly email newsletter utilizing a theme-based approach, in which each issue was designed to increase public awareness and understanding of an ecological topic or issue with local relevance	- SSCW members	- Outreach ongoing	- Monthly e- newsletter to over 500 people
Salem Sound	Provide technical assistance and classroom instruction to area teachers and students studying watersheds and non-	- Salstonstall School, Brookwood School, Endicott College	 Stenciling Stormwater learning and storm drains stenciled with 	- Stormdrains stenciled at three sites

Region	Activity	Partners	Milestones	Outputs
	point source pollution, including storm drain stenciling projects		message: Don't Pollute. Water goes to the Ocean	
Salem Sound	Expand and augment the Think Blue outreach campaign with MBEA	- MBEA, Sara Grady	- Completed	Presented Think Blue outreach at Swim & Fin OceanFest
Salem Sound	Maintain SSCW website and listserve to bring awareness of Salem Sound and its rivers and how people can become part of the environmental solution	-	-	Website that provides environmental information and volunteer opportunities for the public
Salem Sound	Hold a harbor swim and public festival, Swim & Fin OceanFest, to celebrate and educate the public on clean water and their role in keeping waters clean	Local businesses; Coast Guard Auxiliary, Ocean Rivers Institute, DMF, Peabody Essex Museum	- Completed in 2008, but ongoing annually	- Event: 55 volunteers, 50 swimmers, 28 kayakers and many festival goers
Salem Sound	- Eelgrass awareness	- DMF, NOAA, EPA, MAS: all guest speakers	- Completed	Presentation at Beverly Library
Upper North Shore	Coordinate, schedule and chair Eight Towns and the Bay local governance committee meetings	- 8T&B communities, all partners	New membershipDevelopment of Speaker Series	- 10 +/- meetings of 8T&B Committee per year
Upper North Shore	Develop (with partners) the third annual Great Marsh Symposium	- Great Marsh Coalition	Assisted with preparations for Great Marsh Symposium	-
Upper North Shore	Present Greenscapes 101 to area communities and environmental organizations	- Greenscapes communities, local civic groups, area nonprofits	-	Greenscapes outreach and education
Upper North Shore	Participate in Water Issues workshop for state regional planning agencies	Regional planning agencies	Integration of regional water issues and projects	-
Central staff	- Work with MBEA on Think Blue	- MBEA	No collaboration due to inter-organization conflict	-
Central staff	 Communications and Outreach Plan Continue to update and distribute its suite of outreach materials, including a review of the past year's progress 	MBEA, regional service providers	Plan not done due to inter- organization conflict	-
Central	- MBP will continue to distribute its	-	- Done through autumn 08,	_

Region	Activity	Partners	Milestones	Outputs
staff	quarterly e-newsletter and expand the mailing list		On hold pending issue resolution with EEA IT	
Central staff	Expand website to include a new State of the Bays section highlighting the 14 EPA-approved indicators	- Staff, partners	- In progress	-
MBEA	Work with Dwell Creative to pilot the "21 Day Challenge" social marketing tool for both outreach campaigns	- Dwell Creative	 Initiated, some progress Preliminary design Dwell (now SOAP Group) seeking additional funding 	-
MBEA	Continue to distribute periodic campaign e-newsletters, including the "Stormy Report" on a quarterly basis, and Greenscapes e-newsletters on a mostly monthly basis	_	 E-newsletters circulated Wrote/distributed seven e-newsletters and managed 1500 subscribers (increase of 300 from previous year) 	- E-newsletters to 1500+ subscribers
MBEA	Recruit Think Blue Teams and team members in partnership with MBP regional technical assistants.	- MBP	- On hold	-
MBEA	Work with our MBP Cape Cod regional staff to begin planning an expansion of Greenscapes to the Cape Cod region.	- MBP/APCC	Cape region decided not to pursue Greenscapes	-
MBEA	Continue to seek out and exhibit both Think Blue and Greenscapes at municipal and professional conferences	– МВР	 Attended MACC, March 2008, presented Think Blue Toolbox Improved design of TB toolbox, but project put On hold Continued facilitation of Greenscapes Coalition 	- Improved TB toolbox
MBEA	Continue to exhibit Think Blue and Greenscapes at suitable venues for reaching large numbers of citizens, such as local and regional festivals, meetings, and other events	- Pioneer Valley Planning Commission, Neponset River Watershed Ass'n (new partner), City of Cambridge/DPW, Town of Barnstable, Emmanuel College (new partner)	 Reached approximately 58,000 participants total five events Average 23% increase website hits for three days postevent Press in The Boston Globe Photos with Mayor Menino 	 New outreach materials TB: September 2008, Exhibit loan to The Big E TB: August 16,2008 Dorchester Beach Festival @ Malibu Beach TB: June 2008, Cambridge Science

MBP Annual Work Plan, FY10
Page 47

Region	Activity	Partners	Milestones	Outputs
				Festival - TB: May 2008, Exhibit loan Barnstable Maritime Festival - TB: April 2008, Children's Museum Earth Day Celebration
	Goal 16: Manage marine invasive species			
Cape Cod	Continue to foster information exchange and coordination between scientists studying invasive species (tunicates), volunteer monitors, the public, and decision makers.	Not applicable.	- No work on tunicates in 2008	-
Cape Cod	NEW: map invasive Phragmites as part of salt marsh restoration planning	 Town of Brewster DNR, partner GOM Council / NOAA Habitat Restoration Partnership, grant 	Map and report submitted to GOM Council / NOAA Habitat Restoration Partnership	- Map and final report on extent of Phragmites in Stony Brook, Brewster
South Shore	Continue volunteer monitoring for invasive species as part of larger CZM monitoring effort	Scituate, Duxbury, Plymouth Harbormasters, 4 th Cliff Air Force Recreation Area (support), CZM (protocols), MIT Sea Grant (database management)	-	Marine invasives survey data
South Shore	Work with local volunteers to locate and identify invasive wetland plants	-	On hold - not currently active, pending funding	-
Salem Sound	 Continue to develop and distribute public education material on invasive species (completed and ongoing). 	MIT Sea Grant, CZM Aquatic Nuisance Coordinator	- Revised 20 MIS ID Cards	Two different MIS potential invader posters
Salem Sound	Train and manage data collection by volunteers; maintain number of invasive species monitoring volunteers, engage local colleges and summer interns.	MIT Sea Grant - database, CZM Aquatic Nuisance Coordinator, data analysis, sampling equipment	Collected and reported data from nine sites with sixteen volunteers	Volunteer monitoring data
Salem Sound	Participate in the international SETL Project, which collects data on marine fouling organisms from sites across the temperate world.	Salem State CollegeEndicott CollegeSETL Project	 Monitoring settling plates quarterly for species ID and abundance Data given to the international SETL Project 	- Monitoring data

Region	Act	ivity	Par	tners	Mil	lestones	Ou	tputs
Salem Sound	_	Continue to work with MIT Sea Grant Program and CZM's invasive species programs.	_	MIT Sea Grant, CZM Aquatic Nuisance program	_	Training of new volunteers	_	Educational materials Volunteers trained
Salem Sound	-	Contribute location and presence of MIS to central databases, such as SETL Project, MITIS, and MIMIC.	-	MIT Sea Grant, CZM Aquatic Nuisance program, SETL Project	1	Data entered into databases and delivered	-	Monitoring data
Salem Sound	-	Study the newly settled area by the invasive Didemnum vexillum at Beverly Harbor	_	CZM Aquatic Nuisance program	-	Report after year-long study of this species at Beverly Harbor at scientific conference	-	
Central staff	-	Work with the state Aquatic Invasive Species Working Group to implement priority actions from the state Management Plan	-	CZM and other state agencies and non-profit partners	-	Draft revisions to state management Plan completed and ongoing plan implementation continues	_	
Central staff	_	MBP will work with MIT Sea Grant to finish data analysis and prepare a final report based on the Rapid Assessment Survey for marine invasive species conducted in July 2007	_	MIT Sea Grant	ı	Summary of RAS to be included in 2009 State of the Bay Report	_	
Central staff	-	Develop and implement a rapid response protocol in the Northeast	_	CZM and the Massachusetts Aquatic Invasive Species Working Group	-	Completed	-	Early Detection and Rapid Response protocol, available on CZM web site
Central staff	-	Co-chair for the Science and Technology Committee of the Northeast Aquatic Nuisance Species panel	-	Other New England states and Canadian Provinces and federal partners, including US FWS and state partners, including CZM	1 1	Revised NEANS by laws and FY10 Work Plan Completed accounting and tax requirements for nonprofit NEANS Council	-	Draft Work Plan for Science and Technology Committee
CCMP (Goal	17: Monitor marine waters						
Cape Cod	-	Convene working group to identify and prioritize climate change issues to address for Cape Cod	_	EPA ORD / CRE pilot project	_	Plan for MBP Climate Change Working Group	-	
Cape Cod	-	NEW: Monitor climate change impacts on fish runs	- - -	MBP regions, partners DMF - partner Private foundation, funding support MET, potential funding support	-	Agreement with DMF to partner on monitoring and development of outreach and database Proposals for funding climate change monitoring of fish runs in the MBP	-	Funding proposals

Region	Activity	Partners	Milestones	Outputs
			region	
Cape Cod	NEW: monitor climate change effects on salt marshes	WRP MBP Climate Ready Estuaries Pilot Project	- Full proposal for \$20K submitted in March to map and monitoring of coastal embayments where salt marsh retreat can occur as sea level rises due to climate change	- Funding proposal
South Shore	 Assist Mass. Bays Monitoring Scientist with monitoring in South Shore waters 	- CZM, regional communities	-	- Water quality data
South Shore	Continue work with the Cohasset Center for Student Coastal Research to monitor the water of Cohasset and educate students about ecology and water quality monitoring	Cohasset Center for Student Coastal Research, (field and lab work) Town of Cohasset, CZM, EEA, EPA (support)	-	 Water quality data, wetland monitoring data State of the Harbor report
Central staff	- Coordinate marine monitoring in the GOM (GOM) Region	MBP, DMF, GOMCMBP Central Staff	 Serve as MBP liaison to the GOMC's ESIP Developed Gulfwatch database and uploaded to GOMC server Currently developing National Coastal Assessment contaminants in sediments for availability to ESIP 	- Gulfwatch DB
Central staff	 Seek resources to implement assessment type monitoring using (and modifying as necessary) the protocols of EPA's National Coastal Assessment Program Track MWRA's outfall monitoring Serve as the lead contact for the Gulfwatch contaminants monitoring program 	- EPA, DEP, CZM, UNH, MWRA, Weir River Watershed Ass'n	 Applied for DEP grant to monitor, analyze and synthesize organic contaminants in lower Boston Harbor watershed Distributed reports 	 RARGOM report to GOMC, Gulfwatch Contaminants Subcommittee response to GOMC Funding application
Central staff	- Develop a Massachusetts Bays Embayments/Estuaries Atlas	- CZM, MBP, MIT Sea Grant, MWRA, EPA Narragansett Lab	-	Embayment AtlasStrategic PlanProposal draft toNCEAS
Central staff	- Embayment Monitoring	- CZM, UMass/Boston, Towns of Cohasset, Hull, Marshfield,	- Monitoring conducted in 5 subsystems: Cohasset Little	- Mill Pond Study design, QAPP, and

Region	Activity	Partners	Milestones	Outputs
		Scituate, and Gloucester, NOAA	Inner Harbor; Masquashcut Pond, Scituate; Green Harbor, Marshfield; Mill Pond, Gloucester, and Straits Pond, Hull, Hingham, and Cohasset	initial draft
Central staff	Develop new State of the Bays report	- MBP, CZM, WHOI, MIT Seagrant, DMF, Center for Coastal Studies, MWRA, DPH	- 80% of draft submissions received	-
	Develop MB-specific synthesis for NCA and Gulfwatch monitoring initiatives. Data summaries, activity-to-date, and analysis of the National Coastal Assessment and Gulfwatch monitoring activities will be drafted for posting on MBP website	- MBP, GOMC, DMF, UNH	 Compiled all contaminants data in mussels for Gulfwatch in preparation for synthesis for State of Bays report Obtained funding for compiling and reporting on GW 2007 results 	- Gulfwatch 2006 Data Report
SP Obje	ctive II 1: Strengthen the identity and influen	ce of the MBP		
Central staff, regions	Outreach to promote identity of MBP	- Regional partners, MBEA	Website updates, legislative outreach, newsletters, contributions to CZ Mail and other partner news sources	Website updatesArticles/news items prepared
SP Obje	ctive II 2: Identify and pursue alternative fun	ding	•	
MBEA	Pursue partnership with the MET	- MBP	- On hold	_
MBEA	Work with the Executive Office of Environmental Affairs to ensure the assignment of state match funds to the MBP	- MBP/All regional partners	 Initiated, but not successful Information regarding MBP distributed to legislators, state agencies, funding restored 	- Fact sheet
MBEA	Implement the marketing strategy developed in conjunction with the Northeastern graduate interns	- Greenscapes Coalition	 Managed mailing of 100k+ Guides on behalf of 3 regions Distributed approx. 100 Lawn Signs in response to requests from website/e- news Distributed 7 Sprinkler Timers Revised and distributed 	 2008 guide 2009 calendar Lawn signs Medallions

Region	Activity	Partners	Milestones	Outputs
			approx. 500 GS Guides - Developed GS calendar for 09 - Created ID medallions	
MBEA	Strategically seek corporate partnerships to enhance our two outreach campaigns	 Greenscapes Coalition Prides Corner Farms (American Beauties), New England Rainbarrel, Smart Watering Company, Agresource, and Greenscapes Lawn & Garden 	 Promotional materials developed Recruited five Underwriters donating over \$13,000 of inkind services shared by partners Drafted MOU for '09 partnership with American Beauties 	- MoU with underwriters
SP Object	ctive II 3: Ensure effectiveness of MBP structu	re for managing implementation		
Central staff	MBP will work with the MBEA and its board to ensure the smooth growth of both organizations		On hold pending resolution of interagency conflict	
Central staff	MBP will continue the process to revisit the CCMP Action Plans to update and revise Actions to consider climate- related impacts to the MBP region		- On hold until FY10	

2. Support of CWA core program

Core program	Role	Level
Strengthening water	- Gather and share water quality and habitat data	Primary
quality standards	 Work with state agencies on revisions and reporting 	Significant
	requirements for state water quality standard	
	 Work to develop methods for assessing wetlands to 	Primary
	support federal water quality standard requirements	
Improving water	- Provide guidance on monitoring protocols, including	Significant
quality monitoring	development of QAPPs	
	Participate in local and regional forums related to data	Significant
	collection and reporting	8
Developing TMDLs	- Support DEP efforts by providing technical assistance,	Support
z v veroping z iviz zs	water quality data, and review of draft documents	Support
Controlling NPS	- Gather and share water quality and habitat data	Support
pollution on a	 Lead and/or participate in wetland restoration activities 	Primary
watershed basis	- Work extensively on stormwater outreach programs	Significant
Water Sire Casis	- Assist communities in applying for grants for NPS	Primary
	projects	1 minary
	- Participate on grant review committees for 319 and	Significant
	Coastal Pollutant Remediation grants	Significant
	 Delivered presentations related to topics such as Low 	Primary
	Impact Development that reduce the potential for NPS	1 minary
	pollution	
	Provide technical assistance to local governments on	Significant
	meeting Phase II permit requirements, including	Significant
	conducting outreach, facilitating public participation,	
	outfall monitoring, and inventorying infrastructure	
Strengthening	- Conduct workshops about the nature and worth of	Significant
NPDES permits	stormwater utilities	Significant
141 DES permits	- Work towards NDA designations throughout the MBP	Primary
	region; in this reporting period, three more NDAs were	1 minary
	declared in the MBP region leaving one remaining	
	designation, which is anticipated in late 2009	
Supporting	Develop and distribute outreach materials to inform	Primary
sustainable	people about the NDA and associated requirements	1 minut y
wastewater	- Gather and share water quality and habitat data	Primary
infrastructure	- Monitor MWRA data	Primary
mmasu uctule	- INIOIIIUI IVI VY KA UAIA	Significant
	-	Significant

MBP Annual Work Plan, FY10 Page 53

3. Impacts of external factors

As outlined in section A3, above, the MBP continues to make significant progress in protecting and restoring the natural systems of Massachusetts and Cape Cod Bays. MBP continues to enjoy strong partnerships with local planning and conservation organizations, leverages considerable funds to support these initiatives, and plays a lead role in ongoing conservation efforts.

Though MBP claims many successes during the previous 12 months, the year was marked by substantial turbulence. Perhaps the greatest challenge was the substantial rift that formed between MBP and its non-profit counterpart, the Massachusetts Bays Estuary Association (MBEA). Miscommunications and misunderstandings between the two organizations led to administrative and project management difficulties, resulting in diminished capacity to achieve our stated goals for the year.

The rift led to intervention by both EPA and MBP's host agency the Massachusetts Office of Coastal Zone Management. This intervention resulted in the appointment of a new Executive Director for MBP, as well as increased organizational independence of MBEA from MBP.

MBP and MBEA are currently working amicably to formalize and articulate their relationship and respective roles. This relationship is being outlined in a Memorandum of Understanding (MOU). However, both organizations expect that this relationship will evolve and improve over time. MBEA will retain a seat on the MBP Management Committee, and will likely play an important role in implementation of the CCMP for the Massachusetts Bays.

The year was also marked by the loss of state cash match for the program. The loss of funding was due, in part, to the economic downturn and significant state budget cuts. MBP does not anticipate that this funding will be restored for FY10. However, the program recognizes the importance of a strong and positive image in order to secure and retain funding, and MBP will consciously work to strengthen its presence within state government during FY10.

Funding shortfalls were not limited to state government, and program staff and regional service providers had to work harder in FY09 to obtain competitive grants. As mentioned above, the program has made strengthening its identity a priority in FY10. In addition, MBP will develop a finance plan outlining a long-term strategy for acquiring support for the program and its CCMP implementation efforts.

Finally, MBP program staff and RSPs face the ongoing challenge of securing project support and inkind services from overly burdened state and local employees. Cooperation of state and local environmental professionals for CCMP implementation is critical. However, current low staffing levels and fiscal constraints can make collaboration difficult. MBP recognizes the importance of economic arguments for leveraging state and local resources, including in-kind services, and will work to incorporate the valuation of coastal resources into its Work Plan as a means of increasing local interest in conservation efforts.

D. CWA Funds Used for Travel and National Meeting Attendance (State FY09)

Position	Date	Amount		
Executive Director		·		
- ANEP directors meeting, Boulder, CO	Nov 9 - 11	\$1,012		
 Northeast Estuarine Research Society meeting, Block Island, RI 	Oct 16 - 17	\$375		
- ANEP/NEP winter meeting ,Washington D.C.	Feb 22 - 25	\$960		
- Local travel		\$304		
Marine Monitoring Scientist				
- ANEP/EPA fall meeting, New York, NY	Nov 16 - 19	\$370		
- Local travel		\$234		
Outreach and Policy Coordinator		•		
 North American Association for Environmental Education annual conference, Wichita, KS 	Oct 16 - 19	\$325		
- ANEP/EPA fall meeting, New York, NY	Nov 16 - 19	\$390		
- ANEP/NEP winter meeting, Washington D.C.	Feb 22 - 25	\$978		
- Local travel		\$491		
Anticipated Travel				
Local and regional meeting and events	April - June	\$1,500		
TOTAL TRAVEL		\$6,939		